

CLEANUP PRIORITIES FOR THE OAK RIDGE NATIONAL LABORATORY

FACT: Oak Ridge National Laboratory (ORNL) is the largest science and energy national laboratory in the Department of Energy (DOE) system, performing research to find solutions to some of our country's most compelling energy and security problems. The site was first established to produce and separate plutonium for the Manhattan Project. These efforts, and other research over the decades, helped protect and advance our nation but resulted in contamination of ORNL's facilities and the environment.

CHALLENGE: Amid ORNL's modern facilities are a number of inactive, deteriorating, and contaminated buildings and stockpiles of legacy waste that pose risks to human health and the environment. They are costly to maintain in a safe and stable condition. The Oak Ridge Office of Environmental Management (OREM) must conduct cleanup and remediation activities while minimizing impacts to ongoing research missions at ORNL.

SOLUTION: OREM will coordinate the safe and efficient cleanup of the ORNL site – including building demolition, waste treatment and disposal, and soil and water remediation. This work is essential for ORNL to continue its energy and security missions.

CLEANUP GOALS

Completing cleanup efforts at ORNL will protect human health and the environment, reduce facility and maintenance costs, and modernize one of DOE's most valuable assets.



Treat, remove and dispose of legacy materials and waste



Demolish more than 260 excess facilities



Remediate contaminated soil, water and infrastructure



Modernize ORNL to enable future science and energy missions



U.S. DEPARTMENT OF
ENERGY

OFFICE OF
ENVIRONMENTAL
MANAGEMENT



ENERGY.GOV/OREM



January 2017

CLEANUP PRIORITIES FOR THE OAK RIDGE NATIONAL LABORATORY

CLEANUP PROJECTS



FACILITY DECOMMISSIONING AND DEMOLITION (D&D)

270 building D&D projects are planned at the ORNL site (highlighted in red). One building (the Graphite Reactor) will be decontaminated/deactivated and kept for historical preservation. A second building (the Integrated Process Demonstration Facility) will be decontaminated and returned to service. The remaining buildings will be demolished.

REMEDIATION

A number of remediation projects are planned to address environmental contamination on the ORNL site and surrounding area, including:

- **Bethel Valley Facilities:** Remediation of soil, sediments, building slabs, and subsurface tanks and pipelines.
- **Well and Tank Remediation:** Plugging and closing wells, removing and treating radioactive and salt material from tanks, and disposing material and tanks.
- **Remediation Plan Development:** Developing plans that address remedial actions for groundwater, surface water, and remaining facilities.



WASTE DISPOSITION PROJECTS

Two waste disposition projects will remove legacy material that pose a significant risk to ORNL. These projects include processing and dispositioning the remaining **uranium-233** material in Building 3019 and treating and disposing the inventory of **transuranic wastes**.



SURVEILLANCE AND MAINTENANCE (S&M) OPERATIONS PROJECTS

Ongoing environmental management and waste operations projects at ORNL involve S&M activities to detect and address facility issues; maintain gaseous, process, and liquid low-level waste treatment facilities; and manage the storage and disposition of low-level waste and mixed low-level waste inventories.



U.S. DEPARTMENT OF
ENERGY

OFFICE OF
ENVIRONMENTAL
MANAGEMENT



ENERGY.GOV/OREM



January 2017